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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) **CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

INTERNATIONAL APPLICATION NO. PCT/KR2004/000309

INTERNATIONAL FILING DATE 16 February 2004

PRIORITY DATE CLAIMED 16 December 2003

TITLE OF INVENTION

MULTI-LAYERED PHOTOBIOREACTOR AND METHOD OF CULTURING PHOTOSYNTHETIC MICROORGANISMS USING THE SAME

APPLICANT(S) FOR DO/EO/US

LE	LEE, Choul-Gyun; SUH, In Soo and JOO, Hyun-Na					
App	lican	t herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
1.	$\boxtimes$	This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.				
2.		This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.				
3.	Ø	This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.				
4.	$\boxtimes$	The US has been elected (Article 31).				
5.	$\boxtimes$	A copy of the International Application as filed (35 U.S.C. 371 (c)(2))				
	a. b.	<ul> <li>is attached hereto (required only if not communicated by the International Bureau).</li> <li>is attached hereto (required only if not communicated by the International Bureau).</li> </ul>				
	c.	is not required, as the application was filed in the United States Receiving Office (RO/US).				
6.		An English language translation of the International Application as filed (35 U.S.C.				
	a.	is attached hereto.				
	b.	has been previously submitted under 35 U.S.C. 154(d)(4).				
7.	⊠ a.	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))  are attached hereto (required only if not communicated by the International Bureau).				
	b.	□ have been communicated by the International Bureau.				
	C.	☐ have not been made; however, the time limit for making such amendments has NOT expired.				
	d.					
8.		An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).				
9.	$\boxtimes$	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).				
10		An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).				
11	Iter	ns 11 to 20 below concern document(s) or information included:  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.				
12	$\boxtimes$	An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.				
13	. 🖾	A preliminary amendment.				
14	. 🗆	An application Data Sheet under 37 CFR 1.76.				
15	. 🗆	A substitute specification.				
16		A power of attorney and/or change of address letter.				
17	. 🗆	A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.				
18	. 🗆	A second copy of the published International Application under 35 U.S.C. 154(d)(4).				
19	. 🗆	A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).				
20	.⊠	Other items or information: Acknowledgment Postcard				

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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J.S. APPLICATION NO. (if known, see 37 CFR INTERNATIONAL APPLICATION NO.			TION NO.	ATTORNEY'S DOCKET NUMBER			
10/535380 PCT/KR2004/000309			09	428.1052			
The following	fees are submit	ted:				CALCULATIONS	PTO USE ONLY
21. 🛭 Basic na	ational fee			<u></u>	\$300	\$ \$300.00	
22. ⊠ Examination fee  If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4). \$10  All other situations. \$20						\$ \$200.00	
23. Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority						\$ \$500.00 \$ \$1,000.00	
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- 100 =	0 /50 =		0	x	\$250.00	\$ \$0.00	
Surcharge of \$13 from the earliest of	0.00 for furnishing claimed priority d	g the oath or de late (37 CFR 1.4	claration later than 30 192(h)).	months		\$	
CLAIMS	NUMBER	R FILED I	NUMBER EXTRA	R	ATE		
Total claims	19	- 20 =	0	x	\$50.00	\$ \$0.00	
Independent clair	ms 1	- 3 =	0	Х	\$200.00	\$ \$0.00	
Multiple Depend	dent Claims (if a		⊠	+	\$360.00	\$ \$360.00	
S Anniinant alaim			F ABOVE CALC			\$ \$1,360.00	
reduced by 1/2	ns small entity sta 2.	atus. See 37 Cr	R 1.27. The fees indic	ated abo	ye are	\$ \$680.00	
				SUBTO	OTAL =	\$ \$680.00	
Processing fee of the earliest claims	\$130.00 for furnied priority date (3	ishing the Englis 37 CFR 1.492(i)	sh translation later than ).	30 mon	ths from	\$	
			TOTAL NATIO	NAL F	EE =	\$ \$680.00	
Fee for recording be accompanied	the enclosed ass by an appropriate	signment (37 CF cover sheet (3	R 1.21(h)). The assig 7 CFR 3.28, 3.31). <b>\$40</b>	nment m	ust +	\$ \$40.00	
			TOTAL FEES	<b>ENCL</b>	OSED =	\$ \$720.00	
						Amount to be refunded:	\$
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must be filed and granted to restore the International Application to pending status.							
SEND ALL CORRESPONDENCE TO:							
Michael N. Mercanti MUSERI I AN LUCAS & MERCANTI I I R							
MUSERLIAN, LUCAS & MERCANTI, LLP 475 Park Avenue South SIGNATURE							
New York, New York 10016							
Phone: 212-661-8000  Fax: 212-661-8002						Michael N. Merca	nti
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CERTIFICATE OF	Docket No.							
Applicant(s): LEE, CI	noui-Gyun, et al.		428	3.1052				
Application No.	Filing Date	Examiner	Customer No.	Group Art Unit				
To be assigned	Herewith	Unknown	20311	Unknown				
	AYERED PHOTOBIORE RGANISMS USING THE	EACTOR AND METHOD OF CULTU SAME	RING PHOTOSY	NTHETIC				
I hereby certify that	I hereby certify that the following correspondence:							
Specification (49 pages) and Figures (16 pages)								
	(1	Identify type of correspondence)						
is being denosited w	ith the United States Pos	stal Service "Express Mail Post Office	to Addressee" s	ervice under 37				
CFR 1.10 in an env	elope addressed to: Cor	mmissioner for Patents, P.O. Box 145	50, Alexandria, V	A 22313-1450				
on	May 17, 2005							
	(Date)	<del></del>						
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Applicant(s): LEE, Ch	oul-Gyun, et al.	JCC	6 Rec'd PC	11052 PTO 17 M				
Application No.	Filing Date	Examiner	Customer No.	Group Art Unit				
To be assigned	Herewith	Unknown	20311	Unknown				
	AYERED PHOTOBIORE RGANISMS USING THE	SACTOR AND METHOD OF CULTU SAME	RING PHOTOSY	'NTHETIC				
I hereby certify that the following correspondence:  PTO-1390 Form (2 pages, page 2 in duplicate)								
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